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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

RICHARD M. RUSSELL, MAJORITY STAFF DIRECTOR
GABRIELLE BATKIN, MINORITY STAFF DIRECTOR

March 31, 2017

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Pruitt:

I write with concern regarding EPA's sudden reversal¹ of its proposed decision² to ban the remaining uses of chlorpyrifos. Chlorpyrifos is a pesticide used on many food crops as well as on non-agricultural sites such as golf courses. It has been linked to neurological damage and other adverse health impacts. EPA's March 29 decision did not present any new scientific or legal analysis on which to base its reversal. Instead the decision states that "further evaluation of the science... is warranted to achieve greater certainty as to whether the potential exists for adverse neurodevelopmental effects to occur from current human exposures to chlorpyrifos," and says the EPA will complete this additional evaluation by 2022. In fact, the opposite conclusion follows from a plain reading of the relevant law: since the Agency did not provide any new analysis to refute its existing scientific conclusion that the pesticide can't be used on food with a "reasonable certainty of no harm" to people who ingest it, the statute requires EPA to ban such use, not allow it to continue.

Chlorpyrifos, an organophosphate pesticide that has been in use since 1965 and was derived using World War II era nerve agent research, has long been of concern to EPA. In 2000, EPA revoked permission to include it in most products used by homeowners because of evidence that showed it caused acute symptoms such as nausea and dizziness, especially in children.³ EPA also discontinued its use on tomatoes and restricted its use on apples and grapes in 2000, and subsequently restricted its use on other crops and around public spaces⁴.

In 2007, the Pesticide Action Network North America (PANNA) and the Natural Resources Defense Council (NRDC) petitioned EPA to ban all remaining food uses of chlorpyrifos based on concerns that prenatal exposures were causing brain damage. Ultimately PANNA and NRDC filed suit when EPA failed to act in a timely manner. On August 10, 2015, the U.S. Court of Appeals for the Ninth Circuit issued an order directing EPA to respond to the

¹ [https://www.epa.gov/sites/production/files/2017-](https://www.epa.gov/sites/production/files/2017-03/documents/chlorpyrifos3b_order_denying_panna_and_nrdc27s_petition_to_revoke_tolerances.pdf)

[03/documents/chlorpyrifos3b_order_denying_panna_and_nrdc27s_petition_to_revoke_tolerances.pdf](https://www3.epa.gov/pesticides/PrePublicationCopy_16P-0280_2016-11-10.pdf)

² https://www3.epa.gov/pesticides/PrePublicationCopy_16P-0280_2016-11-10.pdf last accessed on March 29, 2017

³ <http://www.nytimes.com/2000/06/09/us/epa-citing-risks-to-children-signs-accord-to-limit-insecticide.html>

⁴ <https://www.epa.gov/ingredients-used-pesticide-products/chlorpyrifos>

groups' petition by October 31, 2015. On that date, EPA proposed to ban all remaining uses of the chemical, citing peer-reviewed toxicological, animal and epidemiological studies as well as EPA's own modeling. One study reviewed by EPA⁶ was performed by Columbia University scientists. The Columbia study compared the neurodevelopment of children born to mothers who were exposed to chlorpyrifos before indoor uses of the chemical were banned to that of children who were not exposed to it in utero. This study found that "even low to moderate levels of exposure to the insecticide chlorpyrifos during pregnancy may lead to long-term, potentially irreversible changes in the brain structure of the child."

The EPA then spent an additional year under a March 31, 2016 court-ordered deadline to finalize action on the petition, incorporating comments on and further review of its 2015 proposal, including feedback received from its own Scientific Advisory Panel which had recommended a change to EPA's methodology. EPA's revised analysis, which was published in November 2016⁷, concluded that "chlorpyrifos on most individual food crops exceed the "reasonable certainty of no harm" safety standard under the Federal Food, Drug, and Cosmetic Act (FFDCA). In addition, the majority of estimated drinking water exposures from currently registered uses, including water exposures from non-food uses, continue to exceed safe levels even taking into account more refined drinking water exposures."

On Wednesday, EPA announced that it has reversed its earlier scientific and legal finding that chlorpyrifos was unsafe and should be banned, instead acting to deny the petition for the ban and stating that it would resolve the matter by 2022. I'm troubled by EPA's apparent dismissal of the extensive analysis undertaken previously by EPA scientists without providing any new scientific analysis to support this decision. The previous finding to ban chlorpyrifos was based on extensive data, models and research developed by industry, government and academic scientists. Absent such justification, this decision to lift the proposed ban could undermine the trust the public has in the agency to keep its food, water and air safe. That is particularly true since a clear and compelling scientific and legal basis for reversing the decision is absent from the materials EPA released on Wednesday as well as from the Agency's extensive public record.

So that I can review the basis for the decision, I ask that by close of business on Friday April 28, 2017, you provide me with a copy of all documents (including but not limited to emails, legal and other memoranda, drafts of legal or regulatory decisions or orders, white papers, scientific references, letters, telephone logs, meeting minutes and calendars, slides and presentations) sent or received by EPA (including documents sent or received by members of EPA's beach-head and transition teams) since November 9, 2016 that are related to EPA's response to the PANNA/NRDC petition to ban all remaining uses of chlorpyrifos.

⁵ <https://www.federalregister.gov/documents/2015-11-06/2015-28083-chlorpyrifos-tolerance-revocations>

⁶ <http://ceceh.org/news/april-30-2012-prenatal-exposure-to-the-insecticide-chlorpyrifos-linked-to-alterations-in-brain-structure-and-cognition>

⁷ https://www3.epa.gov/pesticides/PrePublicationCopy_16P-0280_2016-11-10.pdf last accessed on March 29, 2017

Thank you very much for your attention to this important matter. If you have any questions or concerns, please have your staff contact Michal Freedhoff of my staff at 202-224-8832.

With best personal regards, I am,

Sincerely yours,

A handwritten signature in black ink that reads "Tom Carper". The signature is fluid and cursive, with a horizontal line drawn underneath the name.

Tom Carper
Ranking Member

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United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, DC 20510-6025

<http://appropriations.senate.gov>

June 29, 2017

The Honorable Scott Pruitt
Administrator
The Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20004

Dear Mr. Administrator:

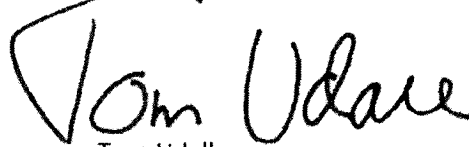
On March 29, you signed an order denying a petition that sought to revoke food tolerances for chlorpyrifos, a pesticide linked to neurodevelopmental disorders in children and acute poisonings of farm workers. Chlorpyrifos has long been of concern to EPA. Residential uses of chlorpyrifos ended in 2000 after EPA found unsafe exposures to children. EPA also discontinued use of chlorpyrifos on tomatoes and restricted its use on apples and grapes in 2000, and obtained no-spray buffers around schools, homes, playfields, day cares, hospitals, and other public places, ranging from 10 to 100 feet.

In 2015, EPA proposed to ban all chlorpyrifos food tolerances, based on unsafe drinking water contamination, which would end use of chlorpyrifos on food in the United States. After updating the risk assessment for chlorpyrifos in November 2016 to protect against prenatal exposures associated with brain impacts, EPA found that expected residues from use on food crops exceeded the safety standard, and additionally the majority of estimated drinking water exposures from currently allowed uses of chlorpyrifos also exceeded acceptable levels, reinforcing the need to revoke all food tolerances for the pesticide.

During our hearing to review the Fiscal Year 2018 budget request for the Environmental Protection Agency, you repeatedly said that you would make a decision on whether or not to regulate chlorpyrifos by October 1st of this year. The EPA website, however, states that EPA "will continue to review the science addressing neurodevelopmental effects and complete our assessment by October 1, 2022." In 1996, Congress unanimously passed the Food Quality Protection Act (FQPA), which directs the EPA to ensure with "reasonable certainty" that "no harm" will result from food, drinking water, and other exposures to a pesticide. If EPA cannot make this safety finding, it must prohibit residues and use of the pesticide on food. Therefore, EPA should not wait until October 2022, or even October 2017, to revoke food tolerances of chlorpyrifos if there is scientific evidence that shows concerns exist. Delay will only result in additional and unnecessary exposures by farm workers and children who continue to have chlorpyrifos experimented on them while the rest of the scientific community has determined there is reasonable cause for danger.

As such, please provide to the Subcommittee the scientific information presented to you that resulted in your decision to reject the petition to revoke food tolerances of chlorpyrifos. Please also provide the letter from the U.S. Department of Agriculture that you referenced, along with an explanation of why you found their scientific analysis more robust than that of EPA's.

Sincerely,

A handwritten signature in black ink that reads "Tom Udall". The signature is fluid and cursive, with the first name "Tom" and last name "Udall" clearly distinguishable.

Tom Udall

Ranking Member

Subcommittee on the Interior, Environment,
and Related Agencies

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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

RICHARD M. RUSSELL, MAJORITY STAFF DIRECTOR
GABRIELLE BATKIN, MINORITY STAFF DIRECTOR

June 20, 2017

The Honorable Scott Pruitt
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20004

Dear Administrator Pruitt:

Thank you for the EPA's June 9, 2017 response to my March 31, 2017 letter regarding the agency's unexpected reversal of a decision to ban the remaining uses of chlorpyrifos.

Unfortunately, your letter did not provide a response to my specific requests for documents and more information, only provided a brief timeline of events, and merely included a referral to the already-public Registration Review Docket.

I ask you again to respond in full.

Please find the referenced letter attached again below. If you have further questions, please feel free to contact Michal Freedhoff at the Committee on Environment and Public Works at (202) 224-8832.

With best personal regards, I am,

Sincerely yours,



Tom Carper
Ranking Member

cc: Wendy Cleland-Hamnett, Acting Assistant Administrator, EPA

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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

RICHARD M. RUSSELL, MAJORITY STAFF DIRECTOR
GABRIELLE BATKIN, MINORITY STAFF DIRECTOR

March 31, 2017

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Pruitt:

I write with concern regarding EPA's sudden reversal of its proposed decision to ban the remaining uses of chlorpyrifos. Chlorpyrifos is a pesticide used on many food crops as well as on non-agricultural sites such as golf courses. It has been linked to neurological damage and other adverse health impacts. EPA's March 29 decision did not present any new scientific or legal analysis on which to base its reversal. Instead the decision states that "further evaluation of the science... is warranted to achieve greater certainty as to whether the potential exists for adverse neurodevelopmental effects to occur from current human exposures to chlorpyrifos," and says the EPA will complete this additional evaluation by 2022. In fact, the opposite conclusion follows from a plain reading of the relevant law: since the Agency did not provide any new analysis to refute its existing scientific conclusion that the pesticide can't be used on food with a "reasonable certainty of no harm" to people who ingest it, the statute requires EPA to ban such use, not allow it to continue.

Chlorpyrifos, an organophosphate pesticide that has been in use since 1965 and was derived using World War II era nerve agent research, has long been of concern to EPA. In 2000, EPA revoked permission to include it in most products used by homeowners because of evidence that showed it caused acute symptoms such as nausea and dizziness, especially in children.³ EPA also discontinued its use on tomatoes and restricted its use on apples and grapes in 2000, and subsequently restricted its use on other crops and around public spaces.⁴

In 2007, the Pesticide Action Network North America (PANNA) and the Natural Resources Defense Council (NRDC) petitioned EPA to ban all remaining food uses of chlorpyrifos based on concerns that prenatal exposures were causing brain damage. Ultimately PANNA and NRDC filed suit when EPA failed to act in a timely manner. On August 10, 2015, the U.S. Court of Appeals for the Ninth Circuit issued an order directing EPA to respond to the

1 https://www.epa.gov/sites/production/files/2017-03/documents/chlorpyrifos3b_order_denying_panna_and_nrdc27s_petition_to_revoke_tolerances.pdf

2 https://www3.epa.gov/pesticides/PrePublicationCopy_16P-0280_2016-11-10.pdf last accessed on March 29, 2017

3 <http://www.nytimes.com/2000/06/09/us/epa-citing-risks-to-children-signs-accord-to-limit-insecticide.html>

4 <https://www.epa.gov/ingredients-used-pesticide-products/chlorpyrifos>

groups' petition by October 31, 2015. On that date, EPA proposed to ban all remaining uses of the chemical, citing peer-reviewed toxicological, animal and epidemiological studies as well as EPA's own modeling. One study reviewed by EPA⁶ was performed by Columbia University scientists. The Columbia study compared the neurodevelopment of children born to mothers who were exposed to chlorpyrifos before indoor uses of the chemical were banned to that of children who were not exposed to it in utero. This study found that "even low to moderate levels of exposure to the insecticide chlorpyrifos during pregnancy may lead to long-term, potentially irreversible changes in the brain structure of the child."

The EPA then spent an additional year under a March 31, 2016 court-ordered deadline to finalize action on the petition, incorporating comments on and further review of its 2015 proposal, including feedback received from its own Scientific Advisory Panel which had recommended a change to EPA's methodology. EPA's revised analysis, which was published in November 2016⁷, concluded that "chlorpyrifos on most individual food crops exceed the "reasonable certainty of no harm" safety standard under the Federal Food, Drug, and Cosmetic Act (FFDCA). In addition, the majority of estimated drinking water exposures from currently registered uses, including water exposures from non-food uses, continue to exceed safe levels even taking into account more refined drinking water exposures."

On Wednesday, EPA announced that it has reversed its earlier scientific and legal finding that chlorpyrifos was unsafe and should be banned, instead acting to deny the petition for the ban and stating that it would resolve the matter by 2022. I'm troubled by EPA's apparent dismissal of the extensive analysis undertaken previously by EPA scientists without providing any new scientific analysis to support this decision. The previous finding to ban chlorpyrifos was based on extensive data, models and research developed by industry, government and academic scientists. Absent such justification, this decision to lift the proposed ban could undermine the trust the public has in the agency to keep its food, water and air safe. That is particularly true since a clear and compelling scientific and legal basis for reversing the decision is absent from the materials EPA released on Wednesday as well as from the Agency's extensive public record.

So that I can review the basis for the decision, I ask that by close of business on Friday April 28, 2017, you provide me with a copy of all documents (including but not limited to emails, legal and other memoranda, drafts of legal or regulatory decisions or orders, white papers, scientific references, letters, telephone logs, meeting minutes and calendars, slides and presentations) sent or received by EPA (including documents sent or received by members of EPA's beach-head and transition teams) since November 9, 2016 that are related to EPA's response to the PANNA/NRDC petition to ban all remaining uses of chlorpyrifos.

⁵ <https://www.federalregister.gov/documents/2015/11/06/2015-28083/chlorpyrifos-tolerance-revocations>

⁶ <http://cccch.org/news/april-30-2012-prenatal-exposure-to-the-insecticide-chlorpyrifos-linked-to-alterations-in-brain-structure-and-cognition>

⁷ https://www3.epa.gov/pesticides/PrePublicationCopy_16P-0280_2016-11-10.pdf last accessed on March 29, 2017

Thank you very much for your attention to this important matter. If you have any questions or concerns, please have your staff contact Michal Freedhoff of my staff at 202-224-8832.

With best personal regards, I am,

Sincerely yours,

A handwritten signature in cursive script, reading "Tom Carper". The signature is written in dark ink and is positioned above a horizontal line.

Tom Carper
Ranking Member



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 09 2017

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

The Honorable Thomas R. Carper
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Carper:

Thank you for the letter of March 31, 2017, to the U.S. Environmental Protection Agency regarding chlorpyrifos.

As you may know, the previous administration prioritized the registration review of the organophosphates (OPs), starting with the question of their neurodevelopmental toxicity. This issue is at the cutting edge of science, involving significant uncertainties. On three separate occasions, the EPA sought advice from the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) on how to evaluate epidemiologic data that explore the possible connection between *in utero* and early childhood exposure to chlorpyrifos and adverse neurodevelopmental effects. The SAP's reports have rendered numerous recommendations for additional study and sometimes conflicting advice for how the EPA should consider the epidemiology data in conducting the EPA's registration review human health risk assessment for chlorpyrifos. What is clear from the panel reports, is that the science on possible neurodevelopmental effects is far from resolved and would benefit from additional evaluation. All registered pesticides must be evaluated, by EPA, through the Congressionally mandated registration review process. The EPA is committed to resolving these questions through that process.

Currently, chlorpyrifos remains registered as the registration review continues. Congress has provided that the EPA must complete registration review by October 1, 2022.

Documents responsive to your request are available at www.regulations.gov:

- Registration Review Docket EPA-HQ-OPP-2008-0850;
- Tolerance Rulemaking Docket EPA-HQ-OPP-2015-0653; and
- Petition Docket EPA-HQ-OPP-2007-1005.

Again, thank you for your letter. If you have further questions, please contact me, or your staff may contact Sven-Erik Kaiser in the EPA's Office of Congressional and Intergovernmental Relations at kaiser.sven-erik@epa.gov or (202) 566-2753.

Sincerely,

A handwritten signature in black ink, reading "Wendy Cleland-Hamnett". The signature is fluid and cursive, with the first name "Wendy" being more prominent and the last name "Hamnett" following in a similar style.

Wendy Cleland-Hamnett
Acting Assistant Administrator